

## Activity 2A Measuring Shells (1 class period)

### Materials Needed:

Shells of different sizes  
One-inch grid paper  
½ inch grid paper  
Science notebook “guess and check” page



**Focus Question:** How much space does a shell cover on grid paper?

### Engagement (5 minutes):

Hold up two shells (similar in size but different in type) and ask, “Which shell is bigger? Longer? Can you tell by looking which is bigger or longer?” “ How can we measure the size of a shell?”

### Exploration (15-20 minutes):

Show students the one-inch grid paper. Model how to find the space covered by a shell by tracing the shell and counting the squares and parts of squares inside the outline. Record this measurement on the one-inch science notebook “guess and check” page.

Next model how to measure the length of a shell. Have students use a unifix cube with their shell. Have students estimate the length in cubes. Measure the length of each shell and record this measurement on the guess and check sheet in the length box.

Move around the room as they measure and record the length and the space covered by their shell.

### Explanation (10 minutes):

Have children share their data with each other – what do they notice? How does their shell compare to someone else’s shell and what does the data show?

Ask students to identify how many squares they used to find the space covered by their shell. Make a class graph or other chart to compare sizes of various shells. Ask students to share their thinking – which shells cover more squares or which cover less? What do they notice?

### Elaboration (15-20 minutes):

Have students select a new shell and measure it using two different sizes of grid. Use one inch grid paper and half inch grid paper to compare the size of the same shell. Students can record these measurements on the glue-in page.

As students finish they can compare their data with one another. Once everyone is done, gather together and notice similarities, differences, and patterns in the data. Have them show their shell with their documented data. Encourage thinking and sharing of ideas.

An additional extension or alternate activity is to use lima and kidney beans (two different size beans) to compare size. Children will trace their shell on paper – and use kidney beans to fill the outline, and then the lima beans to fill the outline. Count and record the data (number of beans) on a “bean space” glue in for their science notebook. These numbers can then be compared and discussed in small groups or eventually in the large group to encourage children’s thinking and observations of patterns and relationships.

**Evaluation:**

Teacher listens and observes as children record their data. Additional lessons or activities can be used to assist those children challenged by math concepts in this lesson; counting, comparing data, noticing relationships and using grid paper.